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# Pest Management

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#### IPM Wrapup Symposium on Tap

This will serve as a final reminder of the IPM Program's Research Symposium, to be held April 15-19, at the Grove Park Inn in Asheville, NC. Information packages and preregistration materials were sent out during the past few weeks. A tentative agenda appeared in the last issue of PM News. That agenda has now been finalized. Preregistration forms are still available from the IPM Program office, 2500 Shreveport Highway, Pineville, LA 71360 (phone 318/473-7250). Scheduled guest speakers and moderators include individuals from the Forest Service's Washington Office Research staff, Southern, Southeastern, and Northeastern Stations, and Southern Region; Cooperative Extension Service; Cooperative State Research Service; Clemson University and the University of Florida; and Union Camp Corporation. All indications point to a good turnout. We hope you'll join us.

### **Washington Office Briefed** on SPBDSS

Investigators from Texas A&M met in Doraville, GA, with Washington Office FPM Director Jim Stewart and Assistant Director Ken Knauer, representatives from FPM staffs in Atlanta, Doraville, and Alexandria, and the IPM Program management team for a briefing on the Southern Pine Beetle Decision Support System. The purpose of the gathering was to 1) familiarize the WO Staff with the system and its potential for handling forest protection problems, 2) obtain feedback on ways to more effectively present the system to potential users, and 3) determine FPM's interest in using the system at the National and regional levels.

Following a hands-on demonstration and discussion, Bob Coulson and Tom Payne were encouraged to submit a proposal for further evaluation of the SPBDSS and some options for maintaining and updating the system beyond the life of the IPM Program. This proposal will be submitted to the FPM Staff in Atlanta through the Program. Following review and evaluation, the proposal will be forwarded to the Washington Office for consideration if this is consistent with the Southern Regional Forester's priorities and needs.

#### **Investment Program Gets** New Look

A new edition of the Forestry Investment Analysis Program, called QUICK-SILVER, has been made available on the IBM Personal Computer for financial analysis of investments in forestry and forestry practices. The original APPLE version of the FIAP proved to be a very popular and useful software tool for forest managers. The new QUICK-SILVER is a userfriendly, interactive computer program capable of very sophisticated analyses that greatly expand the potential of the earlier model.

QUICK-SILVER can be used to analyze the financial consequences of such things as thinning options, pest control treatments, intermediate stand treatments, type conversion, timber leases, and harvesting decisions. It was designed to be flexible and easy to use, and will run on most microcomputers using the MS-DOS operating system.

QUICK-SILVER was developed by J. Michael Vasievich of the Southeastern Forest Experiment Station and is being distributed by FORS, the nonprofit Forest Resources Systems Institute. Inquiries about this new technology may be directed to Dr. Vasievich at the Southeastern Center for Forest Economics Research, P.O. Box 12254, Research Triangle Park, NC 27709 (phone 919/541-4221) or to FORS, Courtview Towers, Suite 24, 201 N. Pine St., Florence, AL 35630 (phone 205/767-0250).

#### Wilderness SPB Plan Aired

Forest Service officials recently announced plans for SPB control in five newly-established wilderness study areas on the National Forests in Texas. The areas include Big Slough on the Davy Crockett National Forest, Little Lake Creek on the Sam Houston, Indian Mounds on the Sabine, and Turkey Hill and Upland Island, both on the Angelina. All five have shown recent SPB activity.

Texas National Forests supervisor Mike Lannan said that plans have been made to monitor, and if necessary, control, SPB outbreaks in these areas to prevent infestations from spreading to timberlands beyond their boundaries. As far as is possible, infestations will be "contained" within wilderness boundaries, but each SPB spot will be individually evaluated and a determination made as to whether control should be implemented based on numbers of trees and neighboring tracts affected or threatened. No control is planned on small spots involving fewer than 10 trees, although they will be monitored. However, spots on wilderness boundaries or adjacent to nesting areas of the redcockaded woodpecker (an endangered species) will be controlled, Lannan noted.

During 1984, the five new wilderness areas had 89 individual infestations, with one on the Little Lake Creek area reported to be relatively large. In view of the Four Notch experience in 1983-84, where 3,000 acres (more than 50 percent of the area) were devastated by the beetle, Lannan said the National Forests in Texas would take no chances by delaying needed controls.

# Mason Cited for Leadership Role

Garland N. Mason, who recently transferred to the Northeastern Forest Experiment Station, has been formally recognized by the Southern Station for outstanding leadership and accomplishment while serving as Research Coordinator for the IPM Program.

In presenting Mason with a Certificate of Merit and cash award, Program Manager Bob Thatcher praised his exceptional performance in the areas of planning, coordination, reporting, and technology transfer during his tenure with IPM. Particularly noted were his efforts in developing and transferring SPB hazard rating and prediction systems to users and pest management specialists, and in assuming leadership in training workshops, symposia, and publica-

tions promoting technology developed through the Program. Thatcher also acknowledged Mason's very high standing within the southern forestry community.

Mason is now serving as Project Leader, Silvicultural Options for the Gypsy Moth, Morgantown, WV. Thanks, Garland, for a job well done!

#### LSU Hosts Forestry Symposium

The 37th Annual Louisiana State University Forestry Symposium is scheduled for March 26-27 at the Capitol House Hotel in Baton Rouge. The theme of the symposium is "Insects and Diseases in Southern Forests." Several IPM-sponsored investigators and cooperators are among the many scheduled speakers.

The meeting opens on March 26 with an industry panel discussion of how insects and diseases impact on forest industries. Technical sessions devoted to specific forest pests and future pest problems follow. Registration fee is \$50. For more information, contact Dr. Richard Goyer, Department of Entomology, 540 Life Science Building, Louisiana State University, Baton Rouge, LA 70803; phone 504/388-1364.

#### Attractant Test and Demo Planned in '85

Wayne Berisford, Lou Kudon, and Tom Payne met with Harvey Toko, Ken Swain, Dave Drummond, Jim Smith, and the IPM Program management team in Doraville, GA, on January 10, 1985, to discuss plans for a pilot test and field demonstration of the SPB attractant tactic during the 1985 field season. R-8 Forest Pest Management and the IPM Program will collaborate in supporting this work.

The attractant will be used to disrupt southern pine beetle spot growth in infestations with 20-70 actively infested trees. Federal and State pest management specialists will assist researchers from Texas A&M and the University of Georgia in locating, selecting, treating, and monitoring spots. Approximately 20 infestations will be treated and monitored for up to 60 days. Spot treatment will begin in April and, if satisfactory infestations are available, spots will be used in Texas/Louisiana and Georgia/South Carolina/Alabama areas.

An applications protocol will be developed by the university investigators and revised as field results warrant. A "how-to" handbook detailing the method will be published after field season results are in.

# Kisatchie Outlines Beetle Strategy

On the heels of its announced plans for Texas, the Forest Service's Southern Region has approved southern pine beetle control procedures for the Kisatchie National Forest in Louisiana. According to the Forest Supervisor, the primary objective on wilderness areas will be to contain infestations within the wilderness boundaries and to exercise controls only where necessary to protect other public and private lands and wildlife habitat. Infestations containing 10 or fewer trees will be left untreated but will be continuously monitored to ensure that they don't increase in size and activity. The Kisatchie National Forest Supervisor said that the Kisatchie Hills Wilderness will be monitored by aircraft and ground observers to detect infestations early.

Control methods covered in the Kisatchie plan include 1) felling and removing actively infested trees, and establishment of a buffer strip to disrupt expansion of the infestations; 2) cut-and-leave; and 3) felling and bucking infested trees, followed by spraying with insecticides. Forest Service efforts to elicit bids for helicopter salvage operations have been unsuccessful so far. Current plans are to mount an intensive cut-and-leave operation in the wilderness area. Normal salvage operations will be pursued in other nonwilderness areas of the Forest.

# **Texas Cooperator Honored**

Charles (Boo) Walker of the Texas Forest Service, an IPM co-investigator associated with Ron Billings in the East Texas Demonstration Project, has received the 1984 Forestry Leadership Award of the Texas Society of American Foresters at its annual meeting. Walker was cited for his leadership in the Texas chapter and in professional forestry in the State. He served as vice-chairman of the TSAF last year and will be its chairman for 1985. He is currently district forester in Livingston. Congratulations, Boo!

# Alabama Reports Annosus Survey Results

The uncertain impact of mortality caused by annosus root rot in thinned pine plantations has been of concern to foresters for many years. The results of a 1983-1984 survey by the Alabama Forestry Commission (summarized below) provide a better understanding of annosus damage in Alabama:

- 1. 37 stands were cruised at 5 percent.
- 2. Annosus-caused mortality was present in 17 of the 37 stands (46 percent).
- 3. Annosus-caused mortality ranged from 0 to 492 (ft.3/acre).
- 4. Annosus-caused value loss ranged from 0 to \$67/acre.
- 5. Average value loss to annosus on all (infected and noninfected) thinned stands in the State was \$9.16/acre.
- 6. Average value loss to annosus in all thinned stands on high-hazard sites was \$12.35/acre.
- 7. Average value loss in stands which currently contain annosus-caused mortality was \$21.06/acre or \$3.86/acre/year.
- 8. Projected value of total current mortality in Alabama is \$8,563,000.
- 9. Annual annosus-caused mortality in Alabama is estimated at \$1,900,000.
- 10. Annosus-caused growth loss on living, infected trees is estimated at 4 percent.
- 11. In addition to direct impacts, annosus disrupts the accomplishment of management plans and increases the risk of southern pine beetle attack.

For more information on procedures or results of the annosus survey in Alabama or annosus root rot in general, contact Bob Kucera, Pest Management Specialist, Alabama Forestry Commission, 513 Madison Avenue, Montgomery, AL 36130; phone 205/261-2547.

#### Popular Handbook Being Reissued

The Texas Forest Service (TFS), in behalf of the National Association of State Foresters (NASF), has agreed to reproduce the IPM Program's "Forester's Handbook for Reducing Bark Beetle - and Disease-Caused Losses in Southern Pines," and will offer it for sale to interested parties. Distribution will likely be through southern State forestry organizations. Readers may contact their respective State Forestry Commissions or the TFS.

Initial availability of the handbook was announced in PM News #50, and supplies were quickly depleted. Widespread interest, particularly from forest industry, prompted NASF's cooperative involvement.

# SPB is Big News in Louisiana!

"The Forest Landowner," newsletter of the Louisiana Forestry Association's Third Forest Program, has devoted its December 1984 issue to southern pine beetle (SPB) identification, direct control, and prevention. This is in anticipation of a widespread southern pine beetle outbreak in Louisiana in 1985. The article includes a diagram of symptoms associated with various stages of SPB-attacked trees and recommendations on what to do to prevent or control infestations. The newsletter is published to inform private forest landowners in the State of issues and programs that affect them. Inquiries about the program and newsletter may be directed to: Third Forest, P.O. Drawer 5067, Alexandria, LA 71301.

# Saunders Joins Penn State Faculty

Mike Saunders, who has been associated with Dr. Robert N. Coulson at Texas A&M in the development of the IPM Decision Support System over the past 2 years, has been appointed Assistant Professor in the Department of Entomology, Pennsylvania State University, effective February 1. In his new post, Mike will be involved in integrated pest management studies of grape insects and will be headquartered at the University's Erie research station. A Virginia native, Mike did his undergraduate work at Duke University and received his M.S. from Old Dominion University. He was awarded a Ph.D. in entomology from the University of Georgia. The IPM Program is very appreciative of Mike's efforts with the DSS, and wishes him well in his new position.

### South Carolina SPB Outbreak Subsides

A status report from the South Carolina Forestry Commission reveals that the State's SPB outbreak that started in August 1982 has subsided and the 19 counties in the outbreak area relegated to endemic status. Low levels of beetle activity are anticipated in South Carolina during the next 2 years.

The report states that SPB-killed timber amounted to 30.4 million board feet of sawtimber

and almost 64,000 cords of pulpwood, 53 percent of which was salvaged due to prompt action and industry cooperation. The value to landowners exceeded \$1.2 million. A month-by-month salvage summary is given.

#### Sawmill Demo Guidelines Issued

A recent release from the South Carolina Forestry Commission describes its operational procedures for conducting portable sawmill demonstrations in the Sand Hills and Coastal Plain regions in the State during FY 1985. The mill is scheduled to operate primarily in the 25county region which has historically had greatest SPB activity, but it will also be available outside this area for lease demonstrations and public showings such as fairs. The Commission plans news releases and radio spots publicizing the sawmill demonstrations in cooperation with project foresters and county extension leaders. Printed fact sheets describing the project will be mailed out as soon as they are completed. For more information, PM News readers should contact Mike Remion, South Carolina Forestry Commission, P.O. Box 21707, Columbia, SC 29221; phone 803/758-2661.

# Texas Report Cites Continuing SPB Threat

A yearend status report issued by the East Texas Demonstration Project indicates that private and industrial ownerships suffered considerable SPB loss in 1984 and the National Forests in Texas suffered their worst year in history. The infestation zone reportedly covered most of the southern half of East Texas, with the heaviest activity concentrated in Walker and San Jacinto counties. Indications are that the outbreak will continue in 1985.

The Texas report also noted than an unusual number of sizeable SPB spots occurred in young, unthinned pine plantations. Under normal circumstances, high levels of attack in young stands would be considered unusual. It does, however, illustrate that young, fully stocked pine plantations can quickly reach a high density, competitive condition and become susceptible to SPB attack, particularly under high population levels.



# Fusiform Rust Survey Upcoming

The Alabama Forestry Commission plans to survey the State in the coming year to determine the impact and incidence of fusiform rust on loblolly pine. A similar survey was conducted for annosus root rot during 1984 (see related report on p. 3). For more information, contact Bob Kucera at the Commission, 513 Madison Avenue, Montgomery, AL 36130; phone 205/261-2547.

# IPM Symposium Proceedings Reprinted

Harry Yates of the Southeastern Station has informed us that the Proceedings of the Integrated Forest Pest Management Symposium, held in Athens, GA, last June, are being reprinted by Clemson University and will be available from them in late February at a cost of \$5.60 per copy plus postage. Copies may be ordered by sending a personal check, money order, or purchase order to the Clemson Bookstore, Clemson University, Clemson, SC 29632. The proceedings (S. J. Branham and G. D. Hertel, eds.) are a state-of-the-art synopsis of the practical application of integrated pest management in the South. Interested readers may wish to contact Dr. Frank Tainter, College of Forest and Recreation Resources, Clemson University, Clemson, SC 29632 (phone 803/656-3302) or the Clemson Bookstore regarding the content of the proceedings or the cost of postage.

# **SPB Activity Increasing**

The area affected by the South's recent southern pine beetle outbreak continues to expand. The number of SPB spots remains high in Texas and Louisiana, while the number in Mississippi is increasing.

An SPB suppression project is presently being implemented on the National Forests in Mississippi. Since October 1 of last year, salvage sales have increased significantly on the Homochitto National Forest, National Forests in Mississippi. The Homochitto Ranger District has salvaged 3.2 million board feet of timber and the Bude Ranger District, 6 million.

There is also a report of an SPB spot on the Black Creek Wilderness Area on the Black Creek Ranger District, DeSoto National Forest in southeast Mississippi. This spot is being inspected by Forest Pest Management, Region 8, and personnel from the National Forest Supervisor's Office in Jackson to determine the status of SPB activity in this area. [Contributed by Mike Connor, R-8 FPM]

# Karpinski Leaves SC Project

Chet Karpinski of Clemson University, who has worked with Don Ham and Roy Hedden on several IPM-sponsored projects, has left the University to take a position with Business Systems, Inc. of Greenville, SC.

Chet joined the Department of Forestry at Clemson in the summer of 1981 and was a major contributor to the IPM work in the South Carolina project. In his new post, he will have technical writing responsibility for documents and user manuals dealing with BSI systems. BSI is a computer software company specializing in products for cable TV and utility businesses.

As Don Ham put it: "Chet was a tremendous asset to our projects and is already greatly missed." Don tells us that Steve Fraedrich, a Ph.D. candidate in the Department of Forestry, has joined the project and will be working closely with him and Frank Tainter. Best of luck to both Chet and Steve!

#### **Other Publications**

Blanche, C. A.; Nebeker, T. E.; Schmitt, J. J.; Hodges, J. D. Techniques for distinguishing the sapwood-heartwood boundary in living loblolly pines (*Pinus taeda* L.). Forest Sci. 30(3):756-760; 1985.

Feldman, R. M.; Curry, G. L.; Wehrly, T. E. Statistical procedure for validating a simple population model. Environ. Entomol. 13(5): 1446-1451; 1984.

Haack, R. A.; Foltz, J. L.; Wilkinson, R. C. Longevity and fecundity of *Ips calligraphus* (Coleoptera: Scolytidae) in relation to slash pine phloem thickness. Ann. Entomol. Soc. Am. 77(6):657-662; 1984.

Lorio, P. L., Jr. Should small infestations of southern pine beetle receive control priority? Southern J. Applied For. 8(4):201-204; 1984.

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Miller, T.; Matthews, F. R. Wounds on loblolly pines are sites of infection for fusiform rust fungus. Southern J. Applied For. 8(4):205-207;

Rykiel, E. J.; Saunders, M. C.; Wagner, T. L.; Loh, D. K.; Turnbow, R. H.; Hu, L. C.; Pulley, P. E.; Coulson, R. N. Computer-aided decisionmaking and information accessing in pest management systems, with emphasis on the southern pine beetle (Coleoptera:Scolytidae). Forum: J. Econ. Entomol. 77(5): 1073-1082; 1984.

Wagner, T. L.; Gagne, J. A.; Sharpe, P. J. H.; Coulson, R. N. Effects of constant temperature on longevity of adult southern pine beetles (Coleoptera:Scolytidae). Environ. Entomol. 13(4):1125-1130; 1984.

